DRAFT ENVIRONMENTAL IMPACT STATEMENT
Executive Summary

ES-1 INTRODUCTION

The Federal Highway Administration (FHWA), in cooperation with the Nevada Department of Transportation (NDOT) and the Regional Transportation Commission of Washoe County (RTC), is preparing an Environmental Impact Statement (EIS) to identify and evaluate transportation improvements along the Pyramid Highway (State Highway 445) corridor in the Northeast Truckee Meadows area.

RTC is the project sponsor and overseeing the environmental study and the preliminary engineering performed as part of the study. If a build alternative is selected as the preferred alternative as a result of the EIS process, the party responsible for development of final design plans, securing bids, selecting a contractor, and construction oversight will be determined at a later date in consultation between RTC and NDOT. Because improvements would occur within NDOT right-of-way, and the proposed US 395 Connector would be an NDOT highway and Pyramid Highway is an NDOT highway, NDOT has a major role in this project, including oversight of the National Environmental Policy Act (NEPA) process, under which this EIS has been prepared. The final design would adhere to NDOT standards and the project would comply with NDOT policy. NDOT also would lead and/or oversee the right-of-way acquisition process to ensure compliance with the Uniform Relocation Act. FHWA has oversight responsibility on the entire process because federal funds are involved.

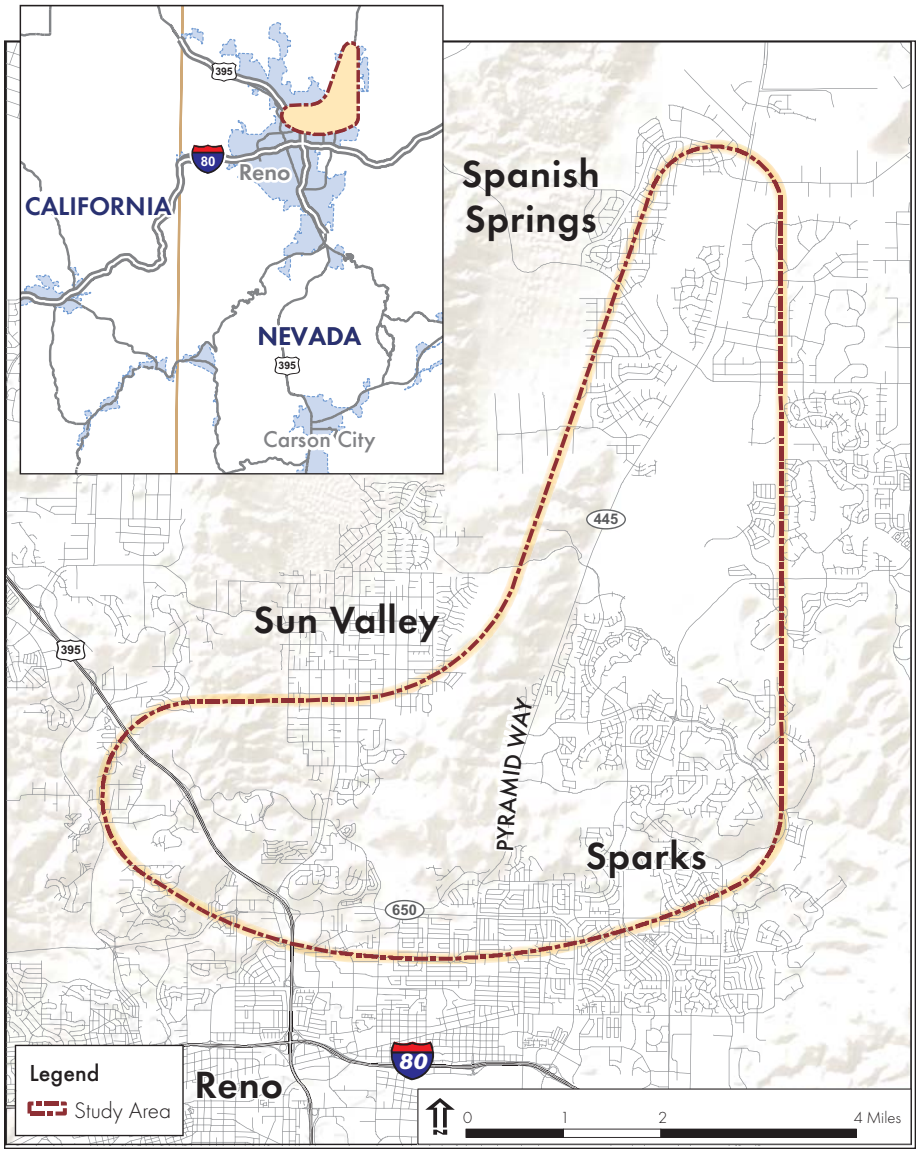
The improvements considered in this Draft EIS address the regional movement of people and goods; relieve traffic congestion on Pyramid Highway; and provide improved east-west community connectivity between United States Highway 395 (US 395), Pyramid Highway, and Vista Boulevard.

The Study Area is located in Washoe County, Nevada (**Figure ES-1**). It covers portions of unincorporated Washoe County and portions of the cities of Sparks and Reno. The Study Area surrounds the existing Pyramid Highway from Calle de la Plata at the northern end to Queen Way at the southern end. The Study Area also includes the area where portions of the proposed roadway connecting existing Pyramid Highway and US 395 (called the US 395 Connector) may be located, extending from near Dandini Boulevard on the west end to Vista Boulevard on the east end (**Figure ES-2**).

ES-2 STUDY BACKGROUND

The RTC's 2015 Regional Transportation Plan adopted in 1997 indicated that forecasted traffic volumes identify a need to widen Pyramid Highway from the existing four lanes to six to eight lanes. In the spring of 1998, the RTC began discussing the Pyramid Highway widening project with the City of Sparks and neighboring communities. In the Northeast Truckee Meadows area, which includes the communities of Sparks, Spanish Springs, Sun Valley and lands immediately surrounding them, populations were expected to greatly increase. Further, population growth in larger Washoe County and employment growth in the southern portions of Washoe County were increasing demand for north-south travel. While recognizing that rapid growth in this area of Washoe County called for a solution to traffic congestion, the City of Sparks and the surrounding communities expressed great concern about community impacts from the planned widening.

Figure ES-1: Vicinity Map
The Study Area is located in Washoe County, Nevada. It covers portions of unincorporated Washoe County and portions of the cities of Sparks and Reno.



In response to the RTC's plan to widen Pyramid Highway, and in view of the growth patterns, the City of Sparks requested that the RTC evaluate long-range transportation solutions for the broader region through 2030.

In the summer of 1998, the Pyramid Highway corridor Citizens' Steering Committee was formed to study and make recommendations for improvements in the Northeast Truckee Meadows area, with specific lane recommendations for the Pyramid Highway through the City of Sparks urban core. The Citizens' Steering Committee included representatives from citizen and neighborhood advisory boards, private development, and local governments. They developed the vision and objectives for the Pyramid Highway Corridor Management Plan (CMP), approved by the RTC in 2002. This CMP formed the basis for inclusion of the improvement project in the 2030 RTP.

Following the adoption of the CMP, the RTC worked with FHWA and NDOT to identify funding sources and lay the groundwork for initiation of this EIS.

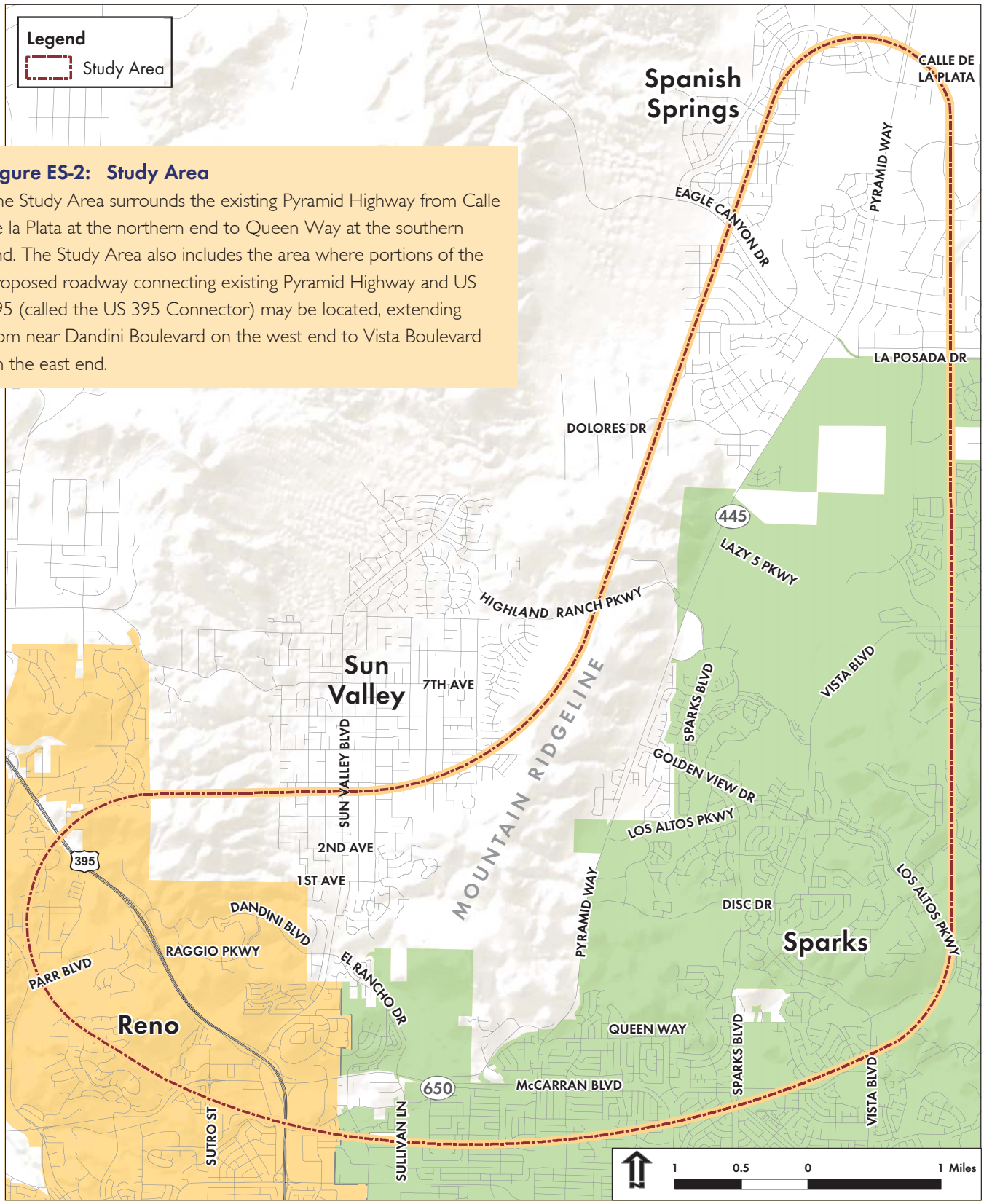


Figure ES-2: Study Area

The Study Area surrounds the existing Pyramid Highway from Calle de la Plata at the northern end to Queen Way at the southern end. The Study Area also includes the area where portions of the proposed roadway connecting existing Pyramid Highway and US 395 (called the US 395 Connector) may be located, extending from near Dandini Boulevard on the west end to Vista Boulevard on the east end.

ES-3 PURPOSE AND NEED

The purpose and needs for this Study are based partly on information developed for the CMP. The CMP formed the basis for inclusion of this project in the Washoe County RTC 2030 Regional Transportation Plan (2030 RTP).

The project objective is to implement a plan that will maintain and improve the Pyramid Highway corridor as a viable transportation route for the Sparks urban core and the growing Northeast Truckee Meadows community. FHWA, NDOT, and the RTC identified multiple statements of purpose in coordination with project stakeholders in support of this objective. The statements of purpose are tied to a recognized need within the Pyramid Highway Corridor, and are described below:

Purpose and Need

Purpose: Provide improvements to serve existing and future growth.

Need: Serve forecasted population and employment growth in the Cities of Reno and Sparks and unincorporated Washoe County, which have experienced considerable growth in population and employment. The projected increase in population and employment in the region will result in a commensurate increase in vehicle miles traveled, and continue to strain the region's transportation network. Improvements are needed to respond to this recent and forecasted growth.

Purpose: Alleviate existing congestion problems on Pyramid Highway.

Need: The level of service (LOS) at some Study Area intersections is currently substandard during peak hours, and numerous intersections are anticipated to operate at LOS F during peak hours in year 2035. Analysis indicates that by 2035 the roadway network will not be able to handle the predicted travel demand. The inadequate transportation network serving the Study Area results in congestion at intersections and on roadways. These conditions will continue to worsen without capacity improvements.

Purpose: Provide direct and efficient travel routes to address existing travel inefficiencies

Need: The existing roadway network lacks east-west connectivity in the Study Area, and north-south connectivity is inefficient. This lack of adequate travel corridors has created inefficient and indirect travel routes, resulting in out-of direction travel and traffic overloading on roadways with insufficient capacity.

Purpose: Respond to regional and local plans.

Need: Numerous local plans cite a need for transportation improvements to help meet land use and transportation goals, and include plans to improve Pyramid Highway and east-west connectivity, and provide multimodal options.

ES-4 BLM AND BIA PURPOSE AND NEED

The Bureau of Land Management (BLM) and the Bureau of Indian Affairs (BIA) are federal agencies serving as cooperating agencies on this project because both agencies have jurisdiction over land within the Study Area. Should a build alternative be identified as the preferred alternative, these agencies would need to authorize any required land appropriations or right-of-way on land under their jurisdiction. This would require the BLM and BIA to conduct an environmental study under the National Environmental Policy Act (NEPA). To streamline the environmental study process, cooperating agency responsibilities under NEPA are addressed under this EIS.

BLM's purpose for this project is to determine if certain public lands should be appropriated for federal highway uses. Similarly, BIA's purpose for the project is to review and approve any acquisition of trust land for transportation right-of-way.

ES-5 ALTERNATIVES

The Study team carried out an extensive process to identify a range of alternatives to meet the Purpose and Need of the project. The alternatives were developed through a comprehensive public and agency coordination process combined with thorough environmental and engineering analysis. The range of alternatives considered in the first three levels of screening fell into eight general categories, with several options considered under each, as described below:

- Two arterial expansion alternatives
- Nine north-south alignments
- Seven east-west alignments
- Six different cross-sections
- Over 20 interchange types and locations
- Bicycle and pedestrian alternatives consistent with area plans
- Three transit alternatives
- Seven lane types
- Eight congestion management strategies

Alternatives that advanced through the alternatives screening process were combined into four build alternatives that were fully analyzed in this Draft EIS. A No-Action Alternative also is fully evaluated and is used as a baseline comparison for environmental analysis purposes. These alternatives are described below.

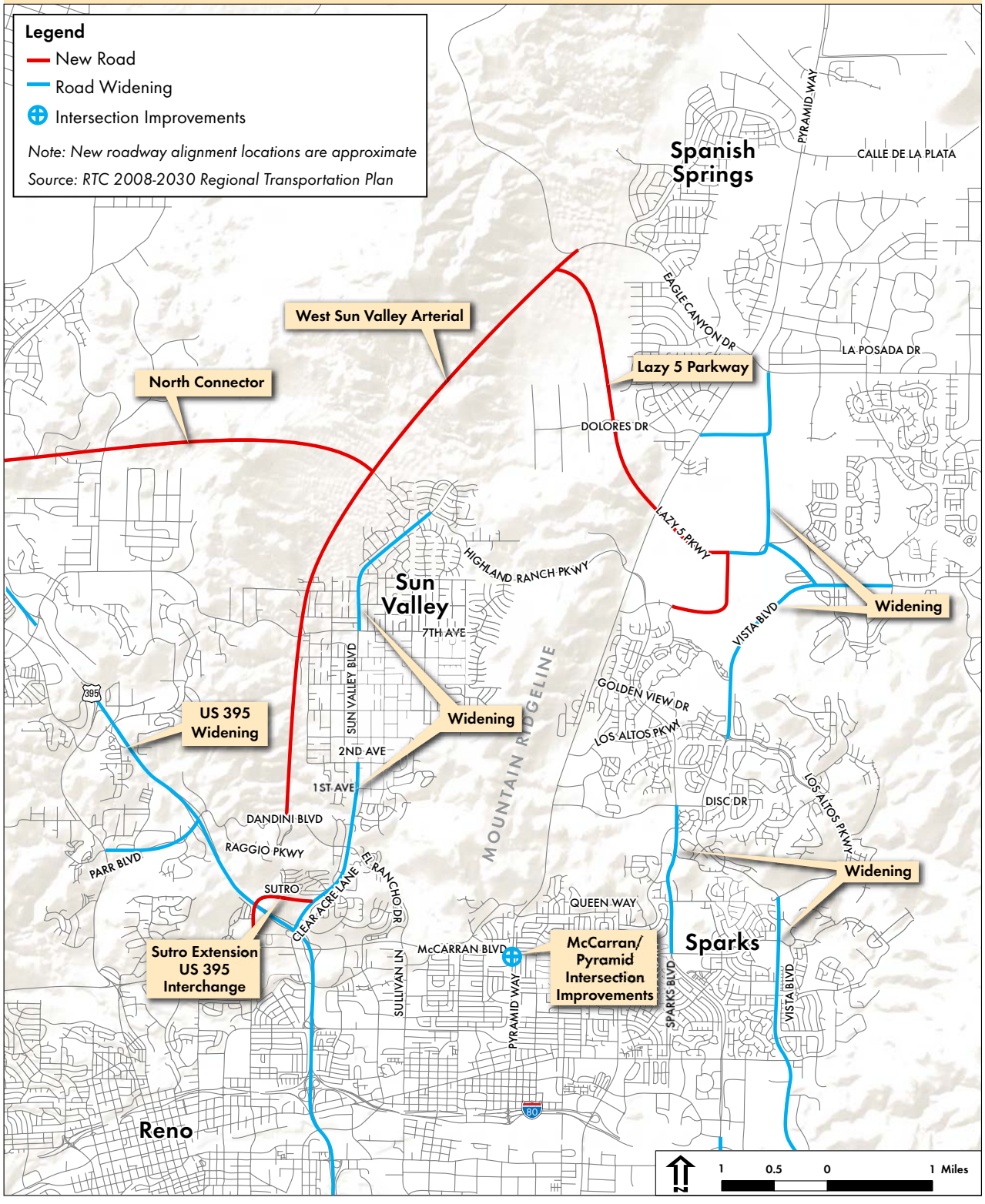
No-Action Alternative

The No-Action Alternative assumes completion of the reasonably foreseeable transportation, development, and infrastructure projects that are already in progress; are programmed by NDOT, Washoe County, the Cities of Reno and Sparks; or are included in the fiscally constrained 2030 RTP. These improvements would be made whether or not any other improvements are made in conjunction with this Study. Under the No-Action Alternative, improvements within the Study Area would consist of planned roadway modifications and additions. The improvements would be locally or regionally funded, and are reasonably foreseeable. **Figure ES-3** shows proposed improvements under the No-Action Alternative.

View from Sun Valley Boulevard south of Rampion Way, looking north

Figure ES-3: No-Action Alternative

The No-Action Alternative assumes completion of the reasonably foreseeable transportation, development, and infrastructure projects that are already in progress; are programmed by NDOT, Washoe County, the Cities of Reno and Sparks; or are included in the fiscally constrained 2030 RTP.



Build Alternatives

Elements Common to All Four Build Alternatives

Each of the four build alternatives would provide similar improvements along Pyramid Highway from Queen Way north to Calle de la Plata Drive. However, the alternatives differ regarding alignments for the US 395 Connector, interchange locations, and cross-sections through much of the Study Area.

Each build alternative would include the construction of an off-street shared-use path along Pyramid Highway between Calle de la Plata and Disc Drive. This path would continue west from Disc Drive to Sun Valley Boulevard along the US 395 Connector alignment for each build alternative. The build alternatives also include regional bus service along Pyramid Highway consistent with the service standards of RTC, and Intelligent Transportation Systems. North of Sparks Boulevard, the build alternatives follow the same alignment along the existing Pyramid Highway. **Figure ES-4** and **Figure ES-5** display the elements common to all build alternatives.

Roadway Improvements

Each build alternative would include a new freeway facility and ancillary improvements from Pyramid Highway to US 395, through the Sun Valley area, referred to as the US 395 Connector in this study. Both the US 395 Connector and Pyramid Highway north to Eagle Canyon Drive/La Posada Drive would be constructed as limited-access freeway facilities, with interchanges at major intersecting roadways. Pyramid Highway from Eagle Canyon Drive/La Posada Drive to Calle de la Plata Drive would be a primary arterial highway.

The US 395 service interchange at Parr Boulevard would be reconfigured to accommodate a new system interchange for the US 395 Connector. Raggio Parkway and Dandini Boulevard would be realigned in this area.

All build alternatives would include construction of auxiliary lanes on US 395 between the new Connector (an element of the build alternatives) and McCarran Boulevard (also known as State Highway 659).

View of southern portion of Study Area looking south along Pyramid Highway

Retaining walls would be constructed where necessary along the corridor to eliminate or minimize impacts. The exact location and design of retaining walls, as well as traffic noise barriers, have not been finalized and will be determined after the selection of a preferred alternative in the Final EIS. Traffic noise impacts and consideration of traffic noise abatement measures will be further evaluated for the Preferred Alternative.

Each build alternative would include construction of water quality and drainage improvements. These would include the construction or replacement of culverts, inlets, and ditches along the impacted roadways, as well as the construction of permanent water quantity/quality basins.

Figure ES-4: Elements Common to All Build Alternatives - Cross Sections

Each build alternative would have the following cross-sections:

- Four-lane arterial along Pyramid Highway between Calle de la Plata and Sunset Springs.
- Six-lane arterial along Pyramid Highway between Sunset Springs and Eagle Canyon Drive/La Posada Drive, between Disc Drive and Queen Way, and along Disc Drive between Pyramid Highway and Sparks Boulevard.
- Five-lane arterial along Disc Drive between Sparks Boulevard and Vista Boulevard.
- Four-lane/six-lane freeway with frontage roads along Pyramid Highway between Eagle Canyon Drive/La Posada Drive and Dolores Drive, and between Lazy 5 Parkway and Highland Ranch Parkway.
- Six-lane freeway with auxiliary lanes along Pyramid Highway between Dolores Drive and Lazy 5 Parkway.

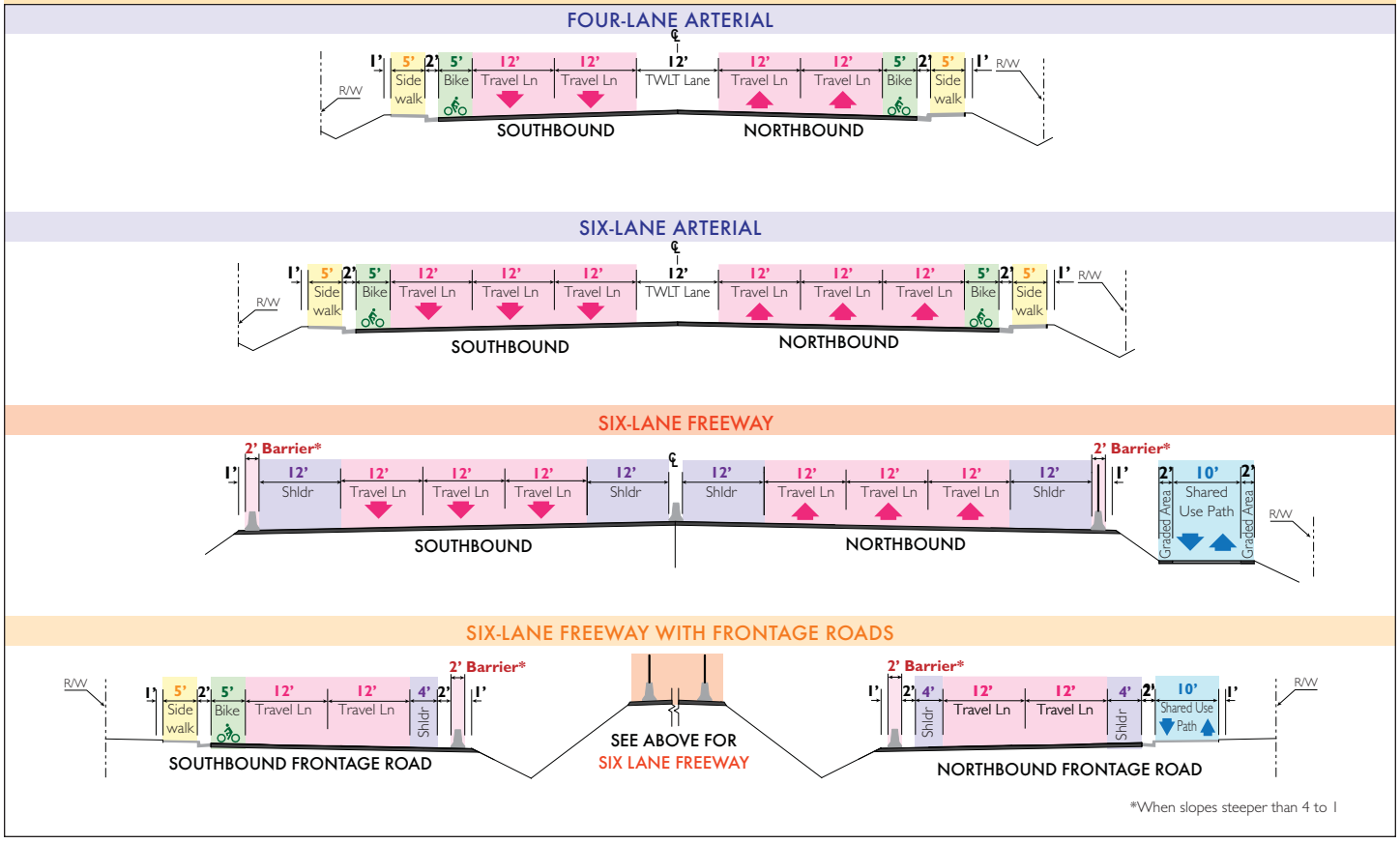
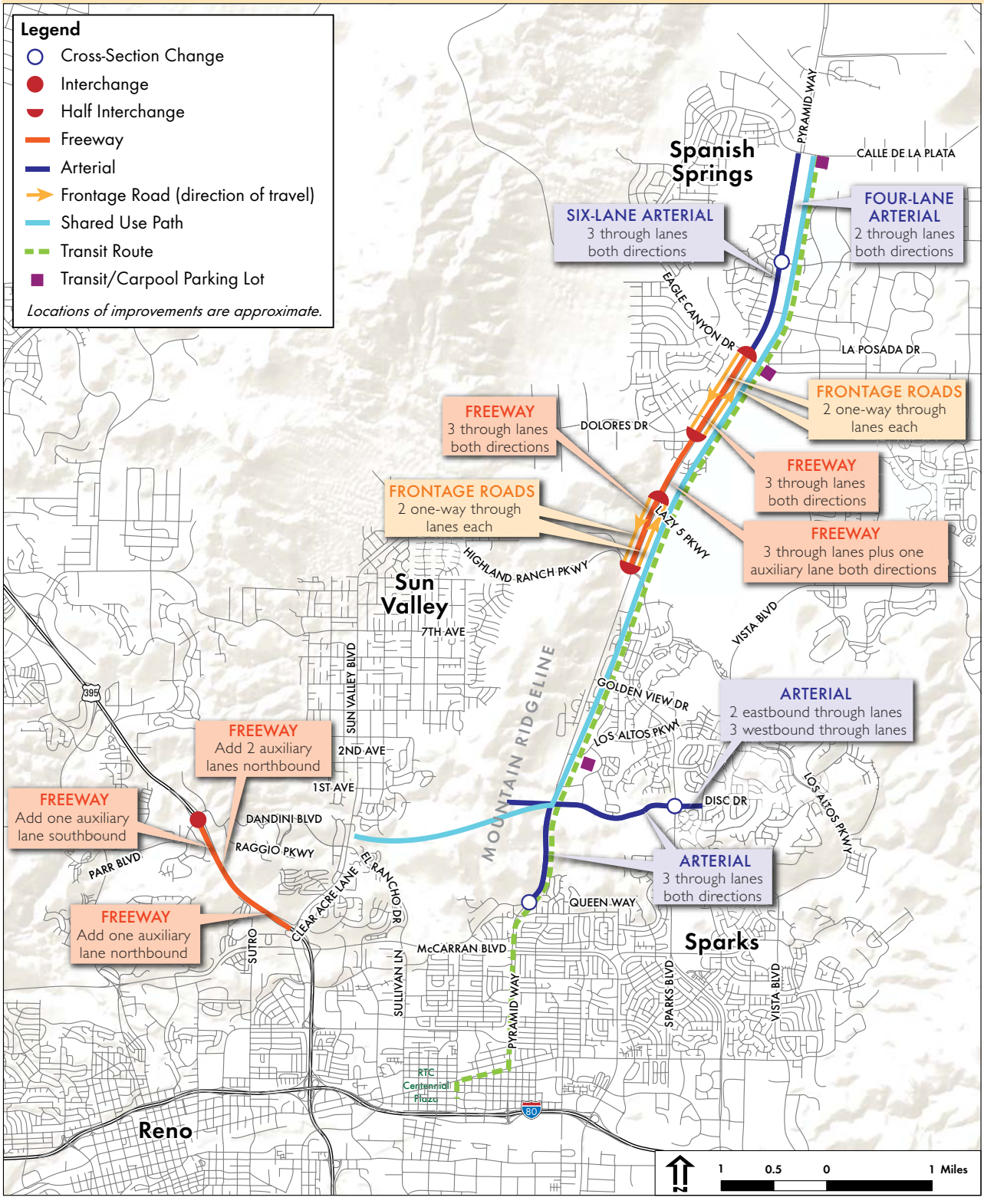


Figure ES-5: Elements Common to All Build Alternatives

Each of the four build alternatives would provide similar improvements along Pyramid Highway from Queen Way north to Calle de la Plata Drive. However, the alternatives differ regarding alignments for the US 395 Connector, interchange locations, and cross-sections through much of the Study Area.



Major Elements of the Build Alternatives

The build alternatives described in this section cover all of the elements/possible scenarios carried forward from the alternatives screening. **Table ES-1** summarizes the major elements of each build alternative; these are described under each build alternative later in this section:

Table ES-1: Major Elements of Build Alternatives

Design Element	Alt. 1	Alt. 2	Alt. 3	Alt. 4
Alignment				
Off Alignment	*			
On Alignment		*		*
Ridge Alignment			*	
Interchange in Sun Valley				
Sun Valley Interchange	*	*		
West Sun Valley Interchange			*	*
Sun Valley Boulevard Crossing Location				
North Crossing (Rampion Way)	*			*
South Crossing (south of Rampion Way)		*	*	

After this Draft EIS is reviewed by the agencies and the public, a Preferred Alternative will be identified in the Final EIS. The Preferred Alternative will be the No-Action Alternative, one of the four build alternatives, or a combination of elements from multiple alternatives.

Alternative 1

Alternative 1, shown in **Figure ES-6** and **Figure ES-7,** would be off alignment just west of the existing Pyramid Highway between the US 395 Connector and Highland Ranch Parkway. This alignment would be just below the ridge line of the mountains, west of Walmart. Of the two crossing locations through Sun Valley, Alternative 1 would follow the Rampion Way crossing and would include an interchange at Sun Valley Boulevard. For the length of the freeway segment from Highland Ranch Parkway to US 395, the typical cross-section would be a six-lane freeway, with auxiliary and/or truck lanes provided where warranted by travel demand or grade. Alternative 1 would have three interchanges, in addition to those common to all alternatives, at Sun Valley Boulevard, Disc Drive, and Pyramid Highway south of Sparks Boulevard/Highland Ranch Parkway (existing alignment). Along the existing Pyramid Highway alignment south of Highland Ranch Parkway, Pyramid Highway would be upgraded to a six-lane arterial between Los Altos Parkway and Disc Drive.

Figure ES-6: Alternative 1 - Cross Sections

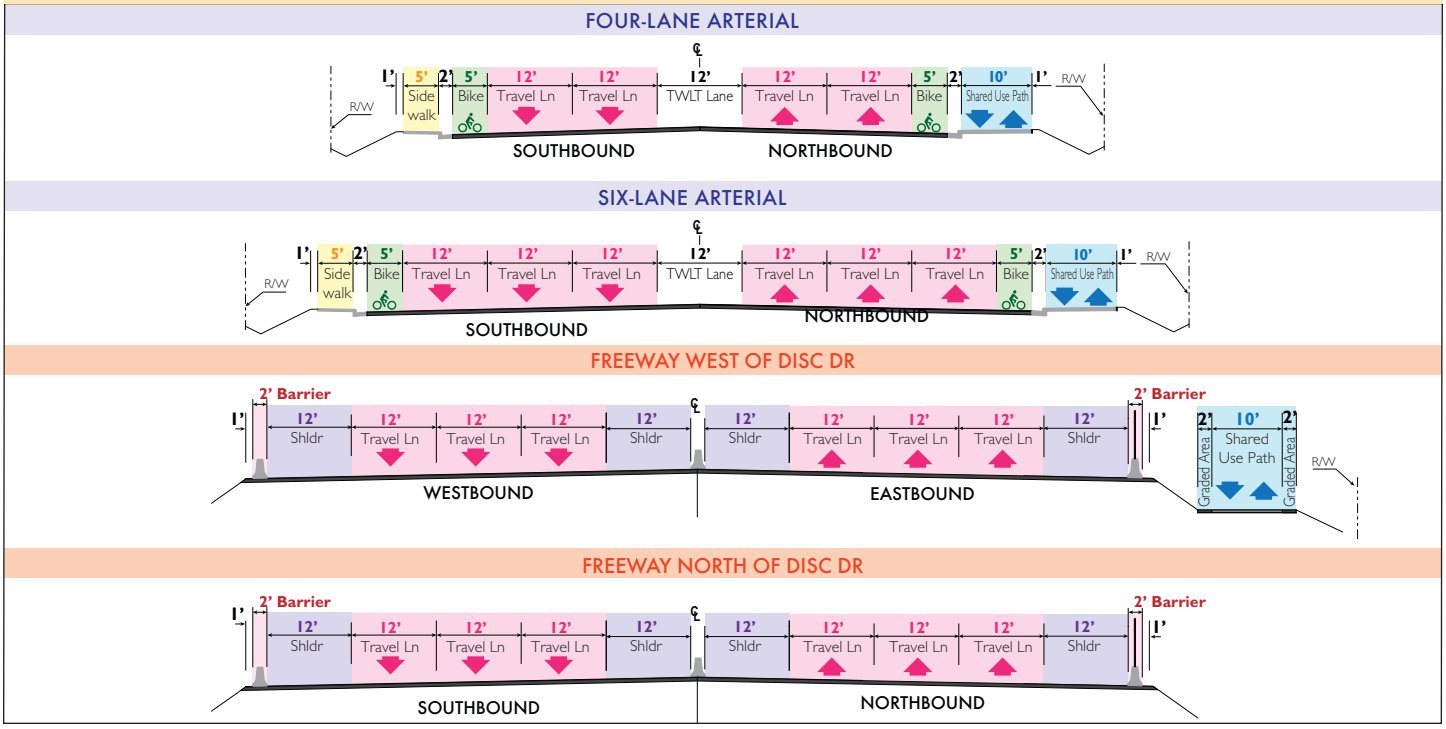
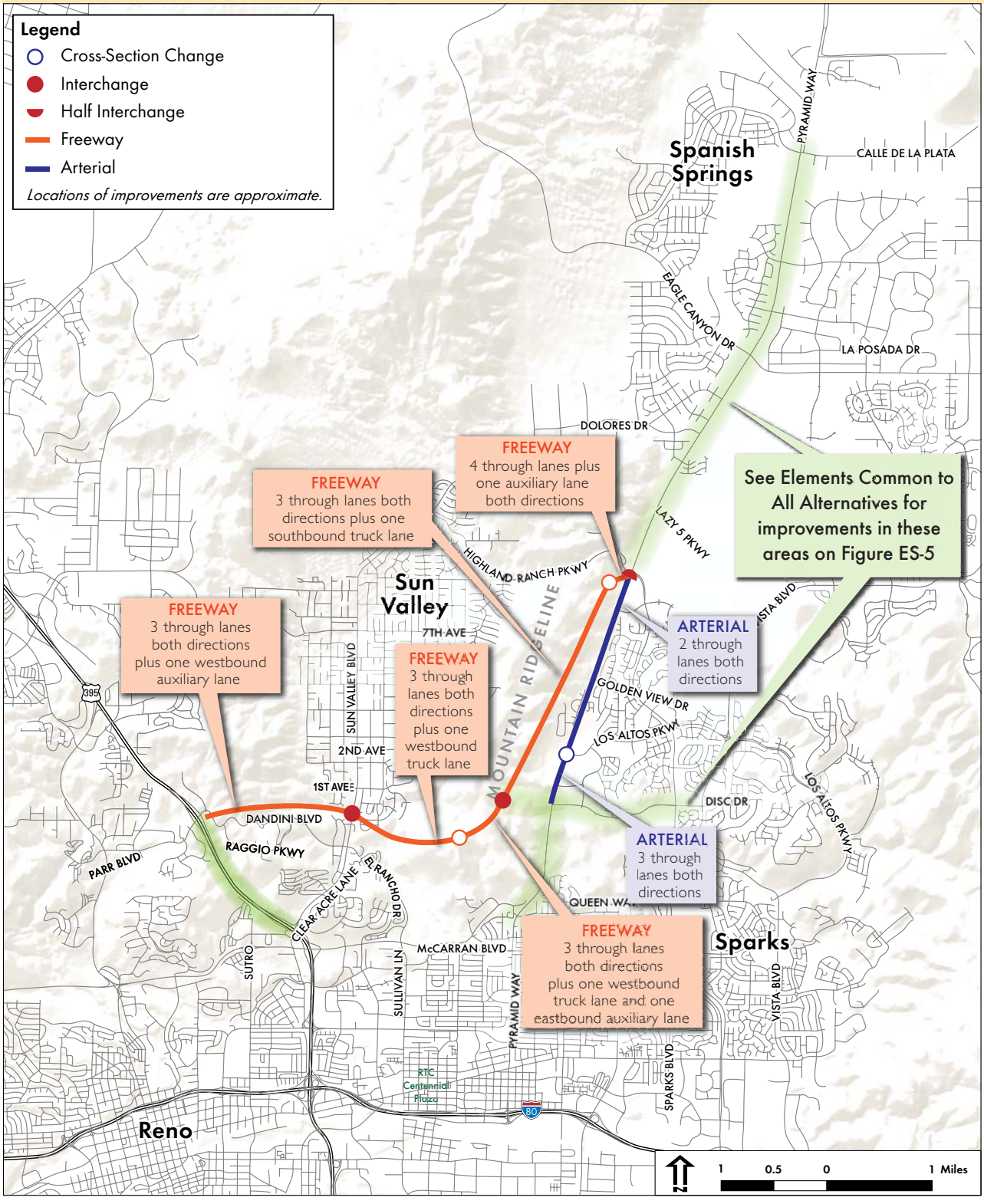


Figure ES-7: Alternative 1

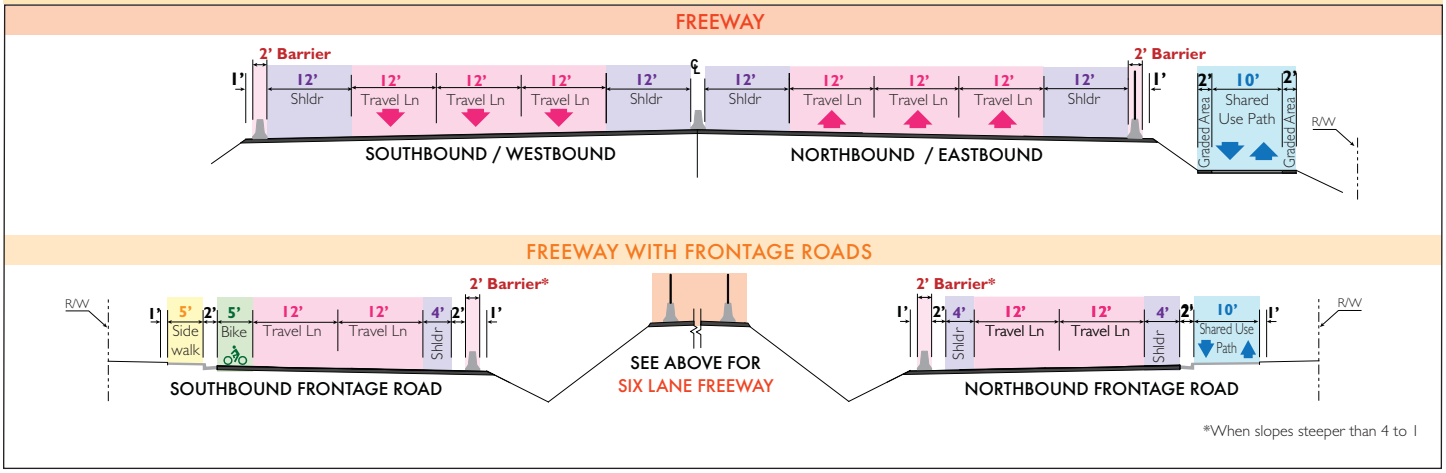
Alternative 1 would be off alignment just west of the existing Pyramid Highway between the US 395 Connector and Highland Ranch Parkway located just below the mountain ridgeline west of Walmart.



Alternative 2

Alternative 2, shown in **Figure ES-8** and **Figure ES-9,** would be an alignment following the existing Pyramid Highway between the US 395 Connector and Sparks Boulevard/Highland Ranch Parkway. This alignment would include a six-lane freeway cross-section between Disc Drive and US 395. This alternative would include Pyramid freeway bridges over Los Altos Drive and Golden view Drive. Frontage roads would be included between Disc Drive and Golden View. Auxiliary and truck lanes would be provided where warranted by traffic demand or roadway grade. The US 395 Connector alignment would follow the south of Rampion Way crossing of Sun Valley and would include an interchange at Sun Valley Boulevard.

Figure ES-8: Alternative 2 - Cross Sections

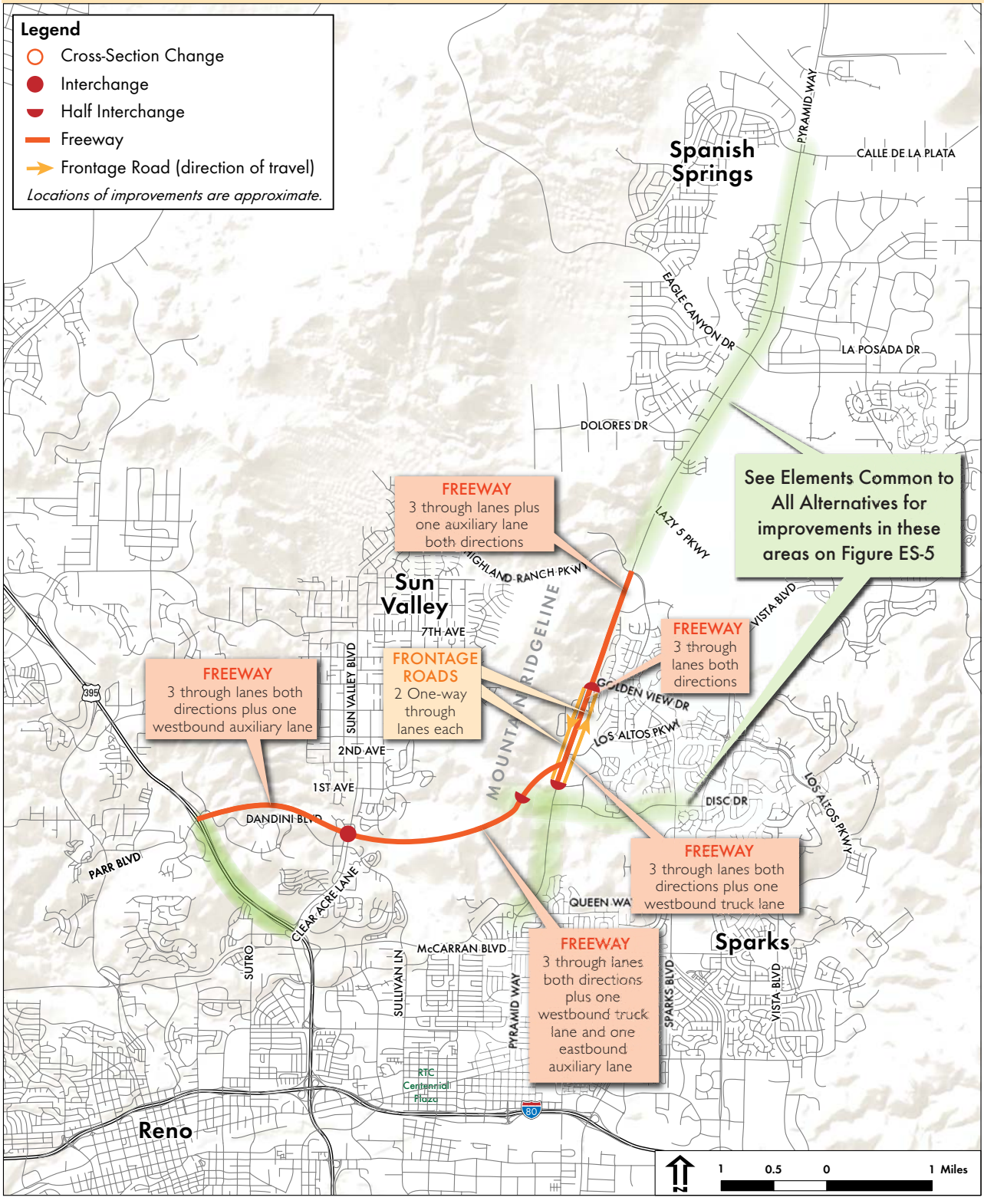


View of Study Area near US 395, facing northwest

View of Study Area south of Los Altos Parkway, looking north

Figure ES-9: Alternative 2

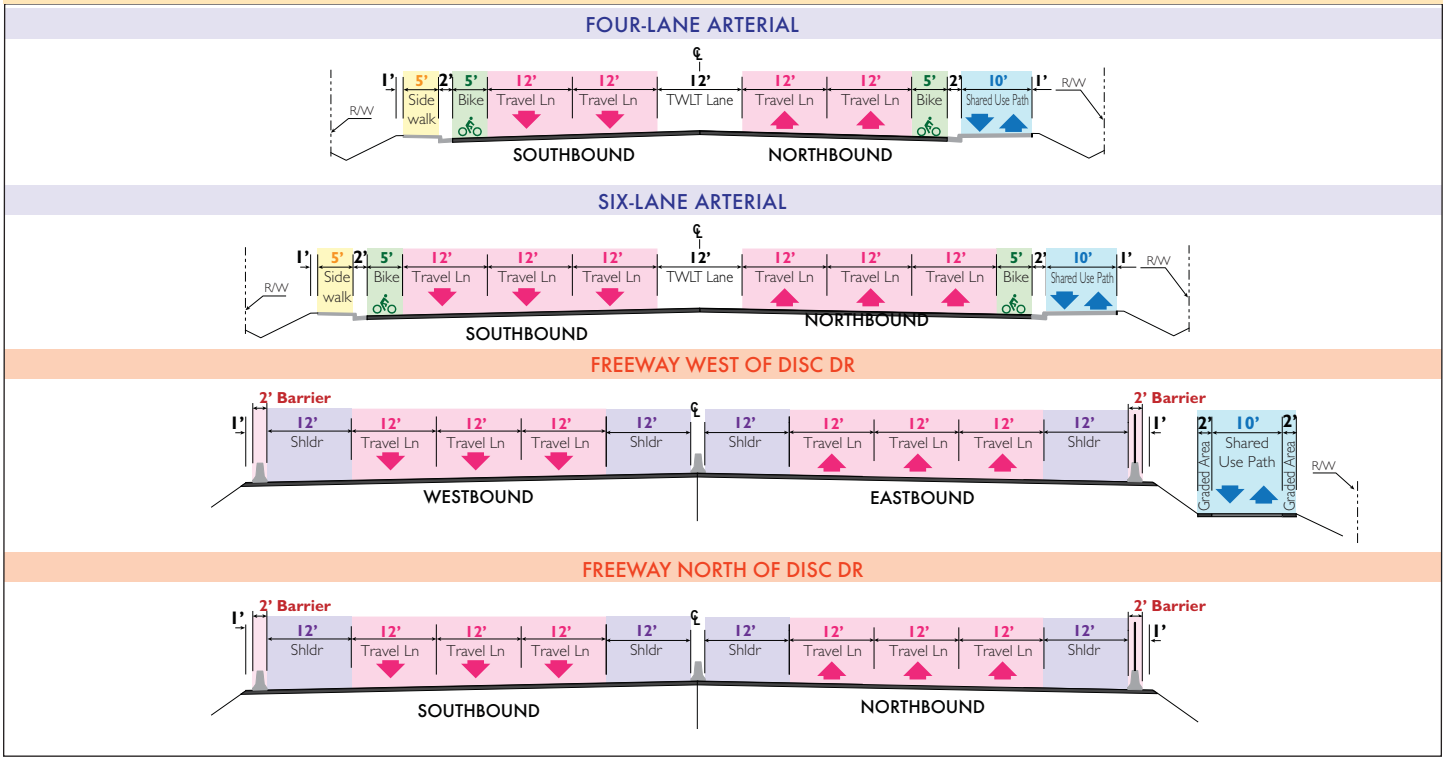
Alternative 2 alignment would follow the existing Pyramid Highway between the US 395 Connector and Sparks Boulevard/Highland Ranch Parkway.



Alternative 3

Alternative 3, shown in **Figure ES-10** and **Figure ES-11,** would be an alignment along the ridgeline of the mountains between the US 395 Connector and Highland Ranch Parkway. This alignment would include a directional interchange at the extension of Disc Drive and a directional system interchange with Pyramid Highway south of Sparks Boulevard/Highland Ranch Parkway and would have the typical six-lane freeway cross-section. Auxiliary and truck lanes would be included where warranted by traffic demand or roadway grade. The US 395 Connector alignment would follow the south of Rampion Way crossing and would include an interchange immediately west of Sun Valley Boulevard.

Figure ES-10: Alternative 3 - Cross Sections



View of Study Area south of La Posada Drive looking south along Pyramid Highway

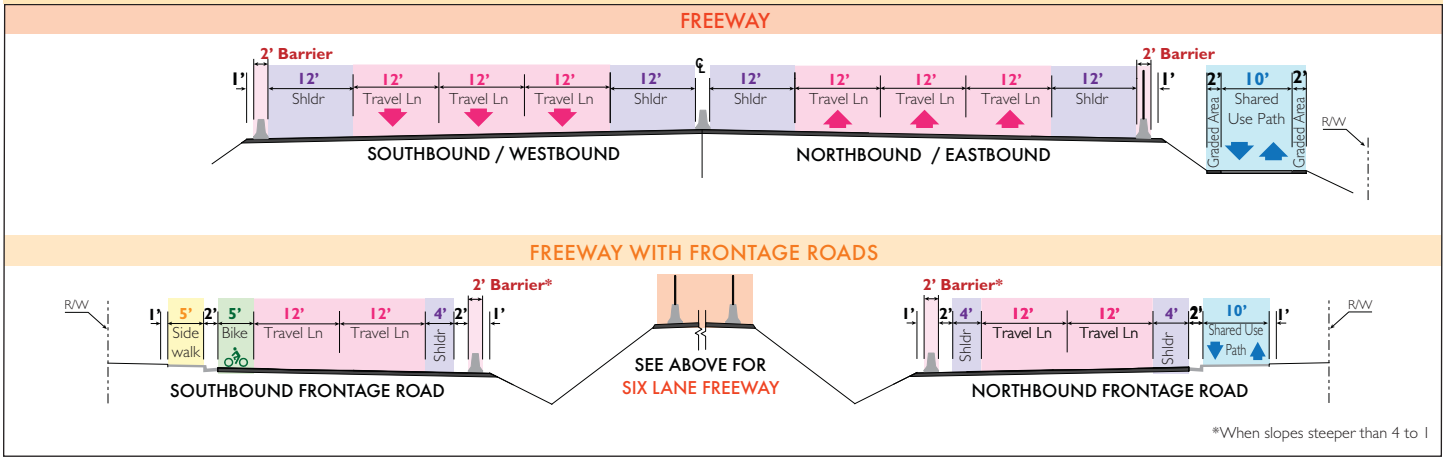
Figure ES-11: Alternative 3

Alternative 3 would be an alignment along the mountain ridgeline between the US 395 Connector and Highland Ranch Parkway.

Alternative 4

Alternative 4, shown in **Figure ES-12** and **Figure ES-13,** would be an alignment following the existing Pyramid Highway between the US 395 Connector and Sparks Boulevard/Highland Ranch Parkway. This alignment would include a six-lane freeway cross-section between Disc Drive and US 395. This alternative would include Pyramid freeway bridge over Los Altos Drive and Golden View Drive. Frontage roads would be included between Disc Drive and Golden View. Auxiliary and truck lanes would be included where warranted by traffic demand or roadway grade. The US 395 Connector alignment would follow the Rampion Way crossing and would include an interchange immediately west of Sun Valley Boulevard.

Figure ES-12: Alternative 4 - Cross Sections

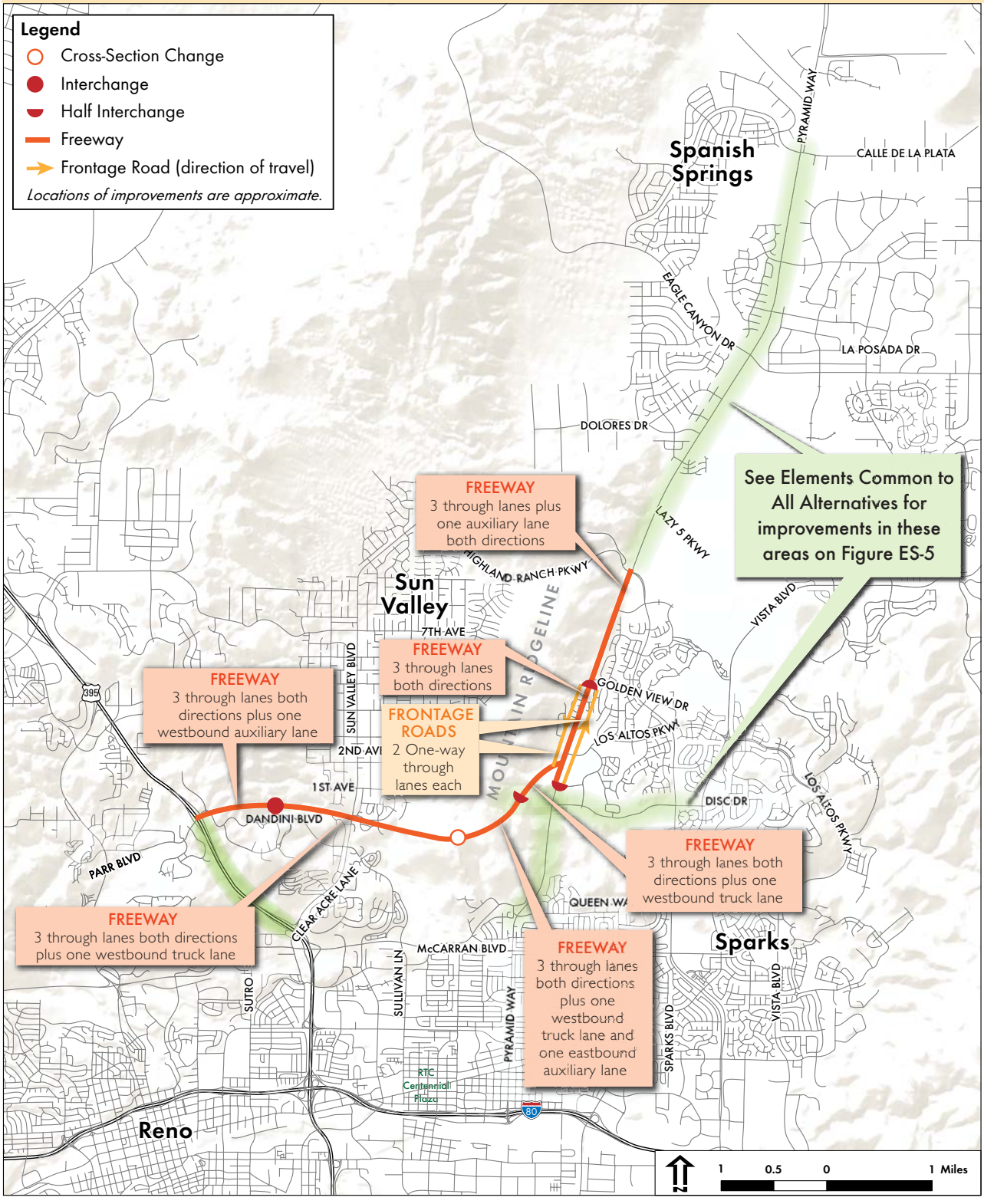


View of northern Study Area south of Eagle Canyon Drive, looking north along Pyramid Highway

Pyramid Highway at southern end of Study Area looking south

Figure ES-13: Alternative 4

Alternative 4 alignment would follow the existing Pyramid Highway between the US 395 Connector and Sparks Boulevard/Highland Ranch Parkway.



ES-6 ENVIRONMENTAL RESOURCE IMPACTS AND MITIGATION

The existing social, economic, environmental, and transportation conditions within the project area are described in Chapter 3.0 of the Draft EIS. Chapter 3.0 presents a thorough discussion of potential consequences, both adverse and beneficial, that could reasonably be expected to result from each of the alternatives considered. It also discusses potential mitigation measures to offset impacts that could occur with the build alternatives.

Impacts

The No-Action Alternative would result in fewer physical impacts to existing social and environmental resources, compared to the build alternatives. The No-Action Alternative would not support regional plans to improve Pyramid Highway and east-west connectivity in the Study Area. Traffic congestion and safety hazards would worsen.

The build alternatives would have varying effects to environmental, social, and economic resources. **Table ES-2** provides a summary of the environmental impacts anticipated from the No-Action Alternative and the build alternatives, followed by a discussion of notable differences in environmental impacts.

Table ES-2: Impact Summary

Resource	No-Action Alternative	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Land Use					
Consistent with local and regional planning	No. Does not support regional planning since regional efforts include improvements to Pyramid Highway and increased east-west connectivity in the Study Area.	Yes	Yes, but less consistent due to impacts at Sparks Galleria.	Yes	Yes, but less consistent due to impacts at Sparks Galleria.
BLM (Bureau of Land Management) Resource Management Plan (RMP), amendment required.	Not available	No			
Acres of land use converted to a transportation use (right-of-way needed)	Not available	939	849	973	866
Social Resources, Environmental Justice, and Economics					
Local and Regional Access	Traffic congestion and safety hazards would worsen, hindering access to housing, businesses, and community facilities and services No changes to local access.	All build alternatives would reduce congestion and add lanes to improve the efficiency and safety of Pyramid Highway. The US 395 Connector would allow better east/west mobility. Improved transit would be provided to serve corridor demand consistent with the service standards of RTC, and local transit routes would be reassessed in coordination with RTC Transit Planning to best serve Sun Valley and the northern Reno/Sparks area. Bicyclists and pedestrian opportunities would also be available. Changes to local access points and circulation.			
Short-term Economic Impacts	Would not result in direct or indirect employment due to temporary construction jobs.	All build alternatives would result in direct employment related to temporary highway construction jobs. Public investment in infrastructure would result in indirect employment in related industries. Induced employment would be expected as a result of the consumer spending that would result from the wages paid to workers directly or indirectly employed through the infrastructure investment.			
Temp Construction Jobs Created	Not available	7,489	7,906	7,436	8,385

Resource	No-Action Alternative	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Long-term economic impacts	No loss of tax base due to property acquisitions. Worsening congestion would impair business access.	All build alternatives would result in the loss of tax base due to property acquisitions. These losses would likely be offset by the benefits of improved transportation facilities. Improved access expands business potential and residential and commercial property values would rise with proximity to improved transportation infrastructure, including public transit (to serve corridor demand consistent with the service standards of RTC) and other multimodal improvements.			
Potential Relocations in Environmental Justice Communities	Potential for relocations	116	190 (120 potential relocations resulting from acquisition of 2 parcels)	177	118
Disproportionate High and Adverse Impact	Not available	No. All build alternatives would provide benefits and mitigation that would offset disproportionate high and adverse impacts.			
Right-of-way					
Potential Residential Relocations					
Single Family	Not available	188	172	127	220
Mobile Home	Not available	22	34	22	34
Multifamily	Not available	0	2 properties, 120 residences		0
Total Potential Residential Relocations	**Not available**	**210**	**326** (120 potential relocations resulting from acquisition of 2 parcels)	**269**	**254**
Potential Business Relocations	Not available	12	26	7	28
Grazing Allotments / Permits on BLM land	Not available	No BLM land that would be affected is actively grazed, based on multiple and ongoing field observations. Effects to any grazing allotment and/or permits would be further investigated during later stages of project development, including Final EIS preparation, final design, and the right-of-way process.			
Transportation					
Meets identified local and regional transportation needs	No	Yes	Yes	Yes	Yes
Vehicle Hours Traveled (annually)	435,000	408,000	408,000	406,000	407,000
Vehicle Miles Traveled (annually)	17,705,000	17,740,000	17,741,000	17,740,000	17,747,000
Transit Improvements	None	All build alternatives include new regional bus service along Pyramid Highway to serve corridor demands consistent with the service standards of RTC, and three new transit/carpool parking lots at major cross streets.			
Traffic Noise					
Number of impacted receivers	205	200	285	189	280
Air Quality					
NAAQS criteria exceeded	Not available	No alternative would cause an exceedance of NAAQS criteria. Improved transportation operations would result in improved air quality compared to the No Action Alternative.			
Pedestrians and Bicyclists					
Bicycle and pedestrian facilities	Some improvements are planned along Pyramid Highway, pending funding.	All build alternatives include providing more bicycle and pedestrian improvements than planned under the No-Action Alternative. Improvements would occur along Pyramid Highway and between Pyramid Highway and US 395 along the US 395 Connector and Dandini Boulevard.			
Water Quality					
Acres of impervious surface added	Not available	395	391	393	392
Construction considerations	Not available	Alternatives 2 and 4 have the least amount of ground-disturbing activity and potential for short-term impacts during construction. Alternatives 1 and 3 have the least large cut and fill slopes and potential for long-term water quality impacts.			

Resource	No-Action Alternative	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Wetlands and other Waters of the U.S.					
Wetlands - square feet of fill	Not available	10	3,463	520	109
Waters of the US – acres of fill	Not available	0.20	0.40	0.28	0.39
Floodplains					
Acres of impact in the 100-year floodplain	Not available	18.6	16.1	14.4	18.1
Vegetation, Wildlife, and Special Status Species					
Key Habitat Impacts – Acres, Temporary/Permanent	Not available	699/744	699/747	742/739	687/739
BLM Land Converted to Transportation Use	Not available	Alternatives 1 and 3 would have the greatest impact to vegetation, wildlife, and special status species resulting from conversion of existing BLM land to a transportation use.			
Visual					
Changes to visual landscape	Visual changes associated with continued area development, and would be consistent with local and regional visual preservation policies.	Similar visual impacts to area residents, businesses, and motorists by introducing new visual elements in the Study Area in the form of street lighting, bridges, ramps, new roadway alignment, cut and fill areas, retaining walls, screening walls, and traffic noise barriers. All build alternatives would be consistent with local and regional visual preservation policies, including the City of Sparks "hillside" ordinance.			
Sensitive Resources	Not available	Alternative 1 and 4 would have the least visual impacts to Wildcreek Park users.	Alternative 2 would have the highest visual impacts to Wedekind Park users.	Alternative 3 would have the lowest visual impacts to Wedekind Park users.	Alternative 1 and 4 would have the least visual impacts to Wildcreek Park users.
Historic					
Prosser Ditch	Not available	Adverse Effect	Adverse Effect	Adverse Effect	Adverse Effect
Sierra Vista Ranch, Trosi Family/ Kiley Ranch, and Iratcabal Farm Historic Districts	Not available	No Adverse Effect			
Hazardous Materials					
Number of potential contaminated sites within the construction limits	Not available	10	9	8	9
Number of potential contaminated sites within 1/4 mile of improvements	Not available	32	32	35	35
Parks and Recreation					
Acres of impact to Wedekind Park	Not available	4.1	5.4	4.1	5.4
Access changes at Lazy 5 Regional Park	No	Yes	Yes	Yes	Yes
Farmland					
Acres, Prime Farmland Impacted	Not available	0			
Use of Section 4(f) properties					
Wedekind Park	Not available	All build alternatives would impact Wedekind Park, converting park land to transportation uses, resulting in a *de minimis* impact.			
Prosser Ditch	Not available	25 linear feet of impact	25 linear feet of impact	120 linear feet of impact	90 linear feet of impact

Land Use. Comprehensive and regional planning documents for Washoe County, TMRPA, RTC, and the City of Sparks call for improvements to Pyramid Highway and improved east-west connectivity, such as an outer ring highway. Because the No-Action Alternative does not include these improvements, it would not be consistent with these plans. All build alternatives are consistent with these plans, with the following exception: Alternatives 2 and 4 result in approximately 30 potential business relocations, the majority of which are located at the Spark Galleria and are, therefore, not consistent with The Sparks Plan (City of Sparks).

Alternatives 1 and 3 would convert approximately 73 to 124 additional acres of existing land uses to a transportation use, compared to Alternatives 2 and 4. This is a result of Alternatives 1 and 3 traveling along U.S. Bureau of Land Management (BLM) lands west of existing Pyramid Highway, before reaching Sparks Boulevard, whereas Alternatives 2 and 4 follow existing Pyramid Highway, adjacent to existing NDOT right-of-way.

Economic. The No-Action Alternative would potentially require business relocations from construction of new roads; the exact relocations are not available at this time. The No-Action Alternative would not provide the capacity and access improvements associated with the build alternatives. This would adversely affect the long-term growth of the tax base and revenues that would result from economic activity, such as planned development. Worsening congestion and safety concerns would make it increasingly difficult to access businesses throughout the Study Area.

All build alternatives would result in the potential relocation of businesses and additional land not within the right-of-way, which would result in loss in the tax base and tax revenues. These losses would be offset by improved access, which expands business potential, raises property values near improved transportation infrastructure, and creates approximately 7,400 to 7,900 temporary construction jobs.

Each build alternative would require right-of-way from trust land of the Reno Sparks Indian Colony, located at the existing Pyramid Highway/Eagle Canyon Boulevard intersection. This land is currently zoned for commercial development. Tribal governments are sovereign nations and acquiring trust land for right-of-way requires adherence to unique processes.

Social and Environmental Justice. Some projects included under the No-Action Alternative, such as the widening of Sun Valley Boulevard or the West Sun Valley Arterial, might displace minority or low-income residents, businesses, or employees. These environmental justice (EJ) communities would be indirectly impacted by increased traffic and congestion.

All build alternatives would result in residential displacements. Alternatives 2 and 3 have more impacts than Alternatives 1 and 4 in part due to the 120 potential relocations at the Sierra Point apartment complex. Adverse social impacts, including community isolation, would occur in several Sun Valley neighborhoods.

All build alternatives would reduce congestion, increase mobility, improve safety, transit options and air quality in the Study Area, and provide direct and indirect employment. Along with the general population, EJ populations would benefit from the improved access provided by these improvements. Overall, project benefits and mitigation would offset disproportionately high and adverse effects to EJ communities from any build alternative.

Relocations. Alternatives 2 and 3 would potentially result in the most residential relocations. The largest impact would be the acquisition of several buildings at the Sierra

Point apartment complex, requiring 120 potential relocations. Alternatives 2 and 4 would potentially result in approximately 30 business relocations, the majority of which are located at the Sparks Galleria, located in the northeast quadrant of the Pyramid Highway/Disc Drive intersection.

Transportation. The No-Action Alternative would not improve traffic operations, safety, connectivity, or transit operations. While some improvements are planned within the Study Area in the No-Action Alternative, these would not alleviate the major congestion issues.

All build alternatives would improve traffic operations, safety, connectivity, and transit operations. Access changes would alter localized travel patterns, but these changes are offset by increased efficiency of traffic operations, particularly for east-west travelers using the US 395 Connector. The US 395 Connector would decrease travel times while relieving congestion on McCarran Boulevard. Alternatives 1 and 3 would increase north-south connectivity by providing a new roadway to existing Pyramid Highway.

A comparison of traffic operations for discrete elements of the build alternatives showed the following:

- The On- and Off-Alignments perform better between the Sparks Boulevard/Pyramid Highway intersection and Disc Drive than the Ridge Alignment.
- The West of Sun Valley interchange option positively impacts Sun Valley Boulevard operations but results in LOS E for US 395 between the Connector and Clear Acre Lane. Conversely, the Sun Valley Boulevard interchange option results in operations at or near capacity along Sun Valley Boulevard, but results in LOS D for US 395.
- Of the two crossing locations of Sun Valley Boulevard, the northerly crossing performs better for the Sun Valley Boulevard interchange scenario, and the southern crossing performs better for the West of Sun Valley Arterial Interchange scenario.

Traffic Noise. Traffic noise impacts would be similar for the No-Action Alternative and Alternatives 1 and 3. Alternatives 2 and 4 would have higher traffic noise impacts compared to Alternatives 1 and 3 because the roadway alignment along portions of Pyramid Highway between Disc Drive and Sparks Boulevard would be constructed closer to residences. In Sun Valley, the southern alignment over Sun Valley Boulevard included with Alternatives 2 and 3 would result in higher traffic noise impacts than Alternatives 1 and 4.

Water Quality. There is little difference in the amount of new impervious surface resulting from the build alternatives. Topography and ground disturbance are the next best indicators of potential water quality impacts. In this regard, each build alternative has merits and limitations compared to other alternatives. Alternative 3 has a large amount of ground-disturbing activity, but its location along a ridgeline facilitates slope stabilization and stormwater management. Alternative 1 traverses a side slope, which complicates the ground-disturbing activities, but it would have less overall ground disturbance compared to Alternative 3. Lastly, Alternatives 2 and 4 would have the largest cut and fill slopes, but the least amount of ground disturbance.

Wetlands and Other Waters of the U.S. Alternative 2 would result in approximately 3,500 square feet of wetlands impact because of the proposed interchange at Sun Valley Boulevard. All build alternatives would likely require a Section 404 permit from the U.S. Army Corps of Engineers due to impacts to wetlands and other waters of the U.S.

Vegetation, Wildlife, and Special-Status Species. BLM land provides the majority of wildlife habitat in the Study Area. All the build alternatives would convert existing BLM land to a transportation use resulting from construction of the US 395 Connector. Alternatives 1 and 3, south of the Pyramid Highway/Sparks Boulevard intersection, would impact additional BLM land as they leave the existing Pyramid Highway corridor and traverse the slopes and ridge behind Walmart. Alternatives 1 and 3 would result in approximately 37 percent more BLM land impacts compared to Alternatives 2 and 4.

Historic Resources. The No-Action Alternative would not result in new impacts to historic resources within the Area of Potential Effects. All build alternatives would result in No Adverse Effect to the three historic districts located within the Area of Potential Effect. All build alternatives would have an Adverse effect on the Prosser Valley Ditch, an NRHP-eligible resource. Alternatives 1 and 2 would result in the least impact to the ditch, with 25 feet of direct impacts. Alternatives 3 and 4 would result in the highest impact to the ditch, with 120 feet and 90 feet of impacts, respectively.

Section 4(f). All build alternatives would impact Wedekind Park, converting park land to a transportation use. Acreages vary, but all build alternatives result in a *de minimis* impact. Alternatives 3 and 4 have the greatest impact to the historic Prosser Valley Ditch, resulting in 120 and 90 linear feet of impact, respectively. Alternatives 1 and 2 both result in 25 linear feet of impact.

ES-7 PROPOSED MITIGATION

FHWA, NDOT, and RTC will avoid and minimize impacts to the extent practicable. Unavoidable impacts will be mitigated to the extent practicable and allowable under state and federal law. Residential and business relocations will follow federal law, which requires just compensation for residences and businesses displaced by a transportation project. Traffic noise barriers are proposed in areas, where reasonable and feasible. Screening walls will be provided in affected minority and low-income neighborhoods, if desired by those communities, to screen views of roadway improvements. Additional analyses and public involvement will be performed during final design to refine the location and height of the traffic noise barriers and visual screening walls discussed in this document. A summary of the measures that RTC and/or NDOT will implement to mitigate project impacts is provided in Section 3.26 of the DEIS.

The Final EIS will provide more detail on mitigation measures, based on public and agency comment on the Draft EIS. All mitigation commitments will be included in the Record of Decision prepared by FHWA at the end of the EIS process.

ES-8 COMMENTS AND COORDINATION

This EIS process involved an extensive public and agency involvement program, with the goal to provide numerous opportunities for interested parties to participate in and contribute to the EIS process. Comments and input received from agencies, members of the public, and tribal representatives throughout the EIS process helped guide decision making on major project elements, such as development of the Purpose and Need and development and evaluation of alternatives.

Agency Coordination

Agency coordination was conducted to ensure a timely flow of project information between

the local, state, and federal agencies involved in the EIS and to ensure necessary interaction with and awareness of public issues and concerns identified during public involvement activities. Coordination activities included project scoping, regular meetings and briefings with agency staff, and creation of a Technical Advisory Committee (TAC).

TAC members included representatives from cooperating and participating agencies (BLM, Reno-Sparks Indian Colony [RSIC], City of Reno, City of Sparks, Washoe County, and U.S. Environmental Protection Agency [EPA]), and their various departments. The TAC helped guide the EIS process, disseminate information to their respective agencies, provide input on major study elements, and provide input on technical issues. The TAC was one of the primary mechanisms used to obtain input at project milestones, per the Section 6002 of SAFETEA-LU.

The Study team met with individual agencies throughout the EIS process to discuss various topics of concern to their particular agency, including several meetings with the EPA, RSIC, BIA, BLM, Washoe County, City of Sparks, and the State Historic Preservation Officer (SHPO). Local, state, and federal agencies were contacted at various points in the process to collect technical information and discuss concerns regarding such issues as wetlands, wildlife, community resources, and city and county long-range plans.

Public Involvement

Several public meetings were held at key milestones in the EIS process to allow the public to interact with planners, engineers, RTC, NDOT, FHWA, and other Study team members to obtain project information. Public meetings allow individuals interested in the project to express their concerns and have questions answered. Several small group meetings were also held to obtain input and provide more focused project information to smaller groups and organizations.

The Study team established a Stakeholder Working Group comprised of various community groups and local agency representatives to provide input to the Study, assist the Study team to better understand the community's needs and interests, and serve as a community liaison to the Study team. The SWG served as an additional mechanism to obtain input at project milestones, as required under Section 6002 of SAFETEA-LU.

Additionally, the Study team began outreach to Environmental Justice (EJ) populations early in the process to ensure that the concerns of minority and low-income communities were considered, and that these groups had a voice in the EIS process. This allowed the Study team to begin working early on to avoid disproportionate adverse impacts to EJ populations. Because Sun Valley contains likely EJ populations and will likely experience project impacts, the Study team held specialized outreach meetings to more involve this community in the EIS process.

Section 106

FHWA consulted with the SHPO, tribal governments, and historic consulting parties throughout the EIS process to identify any concerns regarding the potential effects of the project on cultural resources.

ES-9 SUMMARY AND COMPARISON OF ALTERNATIVES

Table ES-3 summarizes and compares how the alternatives would meet the Purpose and Need of the project.

Table ES-3: Purpose and Need Summary by Alternative

Purpose and Need Element	No-Action Alt.	Alt. 1 Off Alignment	Alt. 2 On Alignment	Alt. 3 Ridge Alignment	Alt. 4 On Alignment
Provide improvements to serve existing and future growth.	Would not accommodate growth consistent with area goals to provide east-west connectivity or Pyramid Hwy improvements.	Would accommodate growth consistent with area plans to improve east-west connectivity and multimodal transportation options.			
Alleviate existing congestion problems on Pyramid Highway.	Increased congestion along entire Pyramid corridor, placing additional pressure on transportation system as a whole. Increased VMT and VHT compared to existing conditions.	Would meet traffic operations conditions. Better performance on Pyramid Hwy. between Sparks Blvd. and Disc Dr. than Alt 3. Increase in total regional VMT and decrease in VHT. Increase in freeway VMT.	Would meet traffic operations conditions. Performance on Pyramid Hwy. between Sparks Blvd. and Disc Dr. same as Alt. 1. Increase in total regional VMT and decrease in VHT. Increase in freeway VMT.	Would meet traffic operations conditions. Worse performance on Pyramid Hwy. between Sparks Blvd. and Disc Dr. than other build alts. because some demand would continue to use Pyramid Hwy. Increase in total regional VMT and decrease in VHT. Increase in freeway VMT.	Same as described under Alt. 2.
Provide direct and efficient travel routes to address existing travel inefficiencies.	Would not improve Study Area connectivity. Would not impact access along Pyramid Highway.	Would improve east-west connectivity. New roadway parallel to highway would improve N/S connectivity and more direct route than Alts. 2 and 4.	Would improve east-west connectivity. On alignment with frontage roads would provide greater connectivity and direct access to Pyramid Hwy activity areas. Alts. 2 and 4 with the on alignment would change access to right-in/right-out onto a one-way frontage road at two locations between Disc Dr. and Sparks Blvd., resulting in out-of-direction travel.	Same as described under Alt. 1.	Same as described under Alt. 2.
Respond to regional and local plans.	Inconsistent with area plans to improve Pyramid Highway and east-west connectivity, and provide additional multimodal options. Consistent with area plans to improve bike/ped facilities as funding allows.	Consistent with area plans to improve Pyramid Highway and east-west connectivity, provide additional multimodal options, and improve bike/ped facilities.			

ES-10 BUILD ALTERNATIVE CONSTRUCTION COST RANGES

Preliminary planning level cost estimates were developed using NDOT software. The costs were estimated in year 2012 construction dollars, and include construction costs, engineering and inspection costs, and costs associated with earthwork, including excavation and hauling. The cost estimates also include traffic control, as well as landscaping and aesthetics, but do not include costs for right-of-way acquisition. **Table ES-4** summarizes the estimated cost ranges for each build alternative.

Before FHWA can sign the Record of the Decision to complete the EIS process, the project must be included in RTC's fiscally constrained 2035 Regional Transportation Plan (RTP), which indicates that full funding for the project has been identified. Currently, all but the portions of the project located along Pyramid Highway north of Sparks Boulevard and the new US 395 system ramps to/from the north are included in the 2035 RTP. Unless additional funding is identified, the project would be constructed in phases, with funded phases designed and constructed first. Therefore, any build alternative would meet the purpose and need of the project as it is implemented in phases over time.

After a preferred alternative is selected, RTC will evaluate funding availability and the Study Team will evaluate whether to implement a phased ROD approach to move forward the portion of the project that is included in the current 2035 RTP. If so, a phasing plan and associated cost estimate will be developed and included in the Final EIS and ROD.

Table ES-4: Build Alternative Construction Cost Range

Build Alternative	Estimated Construction Cost Range (in 2012 dollars)
Alternative 1	$704 M to $776 M
Alternative 2	$766 M to $844 M
Alternative 3	$703 M to $775 M
Alternative 4	$790 M to $871 M

ES-11 OTHER MAJOR GOVERNMENTAL ACTIONS REQUIRED

Implementation of a build alternative may require the following governmental actions, permits, or approvals:

- Section 401 Water Quality Certificate, NDEP, Bureau of Water Quality Planning

View toward Pyramid Highway from Disc Drive looking west

- Section 404 Permit, USACE
- Temporary Working in Waterways Permit, NDEP, Bureau of Water Pollution Control
- Dust Control Permit, Washoe County District Health Department, Air Quality Management Division
- Conditional Letter of Map Revision, Federal Emergency Management Agency
- Letter of Map Revision, Federal Emergency Management Agency
- FHWA Access Approval
- Letter of Consent, BLM
- BLM would reflect the project in future Resource Management Plan revisions, but no amendment to existing plan would be required.
- Compliance with local governmental construction requirements regarding erosion and sediment control, stormwater pollution prevention, and floodplain management.

ES-12 AREAS OF CONTROVERSY

Public concern has been voiced about right-of-way impacts associated with the build alternatives, especially with regard to residential displacements. These concerns have come from EJ communities in Sun Valley and, to a lesser extent, EJ and non-EJ communities along Pyramid Highway. In addition to comments received about the number of residential acquisitions, stakeholders have sought information on how the process would accommodate mortgages with a higher balance than the free-market value of the home. The Lead Agencies have acknowledged and addressed these concerns at public meetings, and have presented information regarding compensation for impacted residents and other mitigation measures for right-of-way impacts.

Related to effects to the Sun Valley community, some stakeholders have questioned the need to cross through Sun Valley in the general area proposed by the build alternatives.

In addition, Alternatives 2 and 4 would result in considerable business displacements along Pyramid Highway. Although suitable and available property appears to exist to help accommodate many business relocations, the impacts under Alternatives 2 and 4 would be disruptive to area businesses.

ES-13 MAJOR UNRESOLVED ISSUES

The Lead Agencies will continue to work with affected stakeholders to address concerns discussed in Section ES-12.

The Section 106 process for this project is ongoing. The Lead Agencies have consulted with the BIA and RSIC, who serve as cooperating agencies for this Study, throughout the EIS process concerning right-of-way impacts that would occur to the RSIC parcel located near Pyramid Highway and Eagle Canyon Drive as a result of the build alternatives. The Lead Agencies will continue to coordinate with the BIA and RSIC to address RSIC concerns associated with the parcel, including Tribal Council and BIA approvals.

An archaeological file and literature search and preliminary field survey was performed for the project in Spring 2012, and preliminary eligibility recommendations were made. If a build alternative is selected as the Preferred Alternative, the Lead Agencies will conduct an inventory to identify archaeological resources within the Archaeological APE and assess potential impacts and determine necessary mitigation measures. The Final EIS will document those findings.

Consultation with the SHPO and other historic consulting parties is ongoing. SHPO concurrence on effect determinations will be obtained upon their signing of the Programmatic Agreement (PA) that is currently being drafted by the Lead Agencies and consulting parties. The purpose of the PA is to stipulate how the Lead Agencies and consulting parties will coordinate and develop mitigation measures for effects to historic or culturally significant resources determined following completion of the EIS process, as described in Section 3.17.1.2 of the DEIS. The PA will include effect determinations for historic resources identified in the EIS. The final, signed PA will be contained in the Final EIS.